INFORMATION FOR THE PRESS

United States Department of Agriculture

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JANUARY 4, 1939 (WEDNESDAY)

WASHINGTON, D. C.

THE MARKET BASKET
by
Bureau of Home Economics, U. S. Department of Agriculture

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TIME TO FEAST ON GRAPEFRUIT AND ORANGES

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Yellow and orange colorings prevail in grocery display windows and on wayside market stands these days — terraced rows and rows of bright yellow grapefruit, pyramids, boxes, and bags of oranges.

America's all-time record grapefruit and orange crops are in the full swing of their marketing season. The term "record crop" scarcely does justice to the 1938-39 grapefruit output, for it is nearly one-third larger than the previous year's all-time record and not very much less than 2-1/2 times the average for the past ten years. The orange crop is so large that the Federal Surplus Commodities Corporation has been authorized to buy some of these fruits as well as some grapefruit, for distribution through relief channels.

Grapefruit and oranges have jumped from a condition of scarcity to one of abundance in record time, as food history goes. Growers and plant breeders, shippers and dealers, and nutrition workers as well, have all had their part in this transformation.

The quality as well as the quantity of grapefruit has been transformed during the past few years, and growers and breeders are always on the alert for new and improved varieties. Today, many of the grapefruit and oranges come with fewer seeds; they are sweeter, more tender, and more juicy than many of the old varieties.

From tree to grocery basket, every step in the handling of citrus fruits is guided by science. Growers even use chemical tests to tell them when to pick their fruit, for much of the fruit looks green when it is ripe, and some of it looks ripe when it is green.

"Handle with care" is a motto well observed in the citrus fruit industry, especially at picking time. Clippers are used to "snip" the stems off short, so no ends will be left to puncture other fruit. Pickers put the fruit into sacks that open at the bottom so it will be easier to protect the fruit from injury as it is rolled into the field boxes. Pickers even wear gloves so there will be no fingernail scratches on the delicate skins of the freshly picked oranges.

In the packing house, oranges and grapefruit go through many processes designed to make them better to eat and easier to sell. They are treated with especially prepared antiseptic solutions to prevent decay, separated into different grades and sizes, "degreened", scrubbed with brushes in a special soap solution, dried, and covered with a wax coating and polished. Often they are wrapped each in a separate square of paper and packed into boxes.

The ripe fruits that look green are placed in a "degreening" room where they are treated with very dilute ethylene gas to take out the green color and leave the natural yellow or orange.

For the sake of eye appeal only, artificial color may be applied to oranges from some producing areas. Early in the season, when much of the fruit is very green, coloring matter is added to many of the oranges, but after mid-December, nature usually completes a satisfactory coloring job. The practice of "adding color" is permitted under the present Food and Drug Act if the following conditions are complied with. Each orange so treated, must be "plainly and conspicuously" labeled to show the added color, and only fully ripe fruits can be colored.

Citrus growers have learned from experience that the best storage place for oranges or grapefruit is on the trees, and this tree-keeping quality helps make possible the year-round supply of fresh oranges and grapefruit. Once picked, citrus fruits are best kept in cold storage. For oranges, the best temperature is just above freezing, while 50 degrees Fahrenheit makes a more satisfactory storage temperature for grapefruit. Homemakers who buy in quantity find it helpful to follow these storage rules.

Nutrition workers have had their influence in increasing the quantity of citrus fruits grown, harvested, and consumed. Vitamin studies proved that citrus fruits are unusually rich natural sources of vitamin C, and that a daily supply of this vitamin is necessary because it cannot be stored in the body. Citrus fruits are most welcome on the winter markets, when supplies of fresh fruits and vegetables are at their lowest.

The person who starts the day with an average-sized serving of one of the citrus fruit juices, say half a cup of juice -- or perhaps half a large grapefruit-- has assured himself of a considerable part of his vitamin C needs for the day. While citrus fruits established their reputation with nutrition workers on the basis of their vitamin C content, they are also good sources of vitamin B, supply some vitamin G, and a fair amount of the essential minerals.

Shoppers who want to get the most for their money when they buy citrus fruits, select fruits that are firm and heavy for their size with smooth and thin skins. The best grapefruit are also well shaped and springy to the touch, never soft, wilty, nor flabby. The best oranges have a fine textured skin for the variety. The brown or "russet" coloring found on the surface of many citrus fruits is a little less than skin deep, and does not affect the flavor, sweetness, or food value.

Heaviness in the orange or grapefruit is the sign of juiciness and the rule, "a pound of oranges makes a cup of juice", is helpful, though not infallible. This year, a few dealers and shippers are trying out the idea of selling oranges by weight, and if the experiment "works", homemakers may one day find a new help in estimating how much juice they are buying.

Oranges most often make their appearance at the breakfast table as juice. Grapefruit commonly come in halves, with the membranes loosened and center and seeds removed, to be enjoyed with or without sugar or honey, and with or without a slight sprinkling of salt, according to taste.

Few fruits are more delicious in salads or in fruit cups than these same citrus fruits. But to be at their best, they must be freed from membranes, and this task takes time.

Many homemakers find that the membrane comes off more easily and quickly if they peel the fruit rather than pare it, and use the knife sparingly. First, remove the rind and scrape off the white pith with a sharp knife. Then break the grapefruit or orange in two. Less juice will be lost if you work from the half, rather than on each individual section.

Working from the half, remove the membrane of each section in turn. With a sharp knife, cut the membrane along the center much as you would slit a letter with a paper knife. Then the seeds will fairly fall out and the membrane can be pulled off easily, though a little extra teasing may be necessary in taking it from the outside surface of the fruit. The sections should come off whole, with an almost perfect outline, and nearly every bit of the juice intact.

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INFORMATION FOR THE PRESS

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THE MARKET BASKET

by

Bureau of Home Economics, U. S. Department of Agriculture

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HOMEMAKERS HAVE THEIR TURN

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Long before questions-and-answers became a major indoor sport, the United States Bureau of Home Economics was answering thousands of queries from homemakers eager to get the latest scientific slant on their jobs. For modern homemaking is a blend of many sciences.

Every day, the mailman delivers a bagful of question-letters at the headquarters of the Bureau. They are from homemakers all over the nation, who want to know everything, from the food value of a potato, to how to make holiday candy; from how to plan a food budget, to how to get the most for your money when you buy fresh vegetables.

Some questions appear over and over again in the Bureau mailbag. Here are a few of the most popular, with answers by Bureau specialists:

Question: Are home-canned tomatoes a good source of vitamin C?

Answer: Yes, home-canned tomatoes are a good source of vitamin C if they are canned in the right way. The acid of the tomato helps protect its vitamin C against destruction by heat and air in canning, as in cooking. Practically none of the vitamin C (ascorbic acid) of tomatoes is lost in home-canning if you use the hot or cold pack method. Probably more vitamin C is destroyed in the open-kettle method because the tomatoes are exposed to the air for a longer time while they are hot. But even tomatoes canned from the open kettle still retain considerable ascorbic acid.

But home-canned tomatoes do gradually lose some of their vitamin C after they have been stored for some time. Canned tomatoes may lose from one third to one half their vitamin C if stored for six months at room temperature. But even tomatoes stored for this long a time will contain enough vitamin C to make them a noteworthy addition to the winter menu.

Question: My new recipe book says searing doesn't help to hold in the juices when you roast meats. Is this true?

Answer: Your new recipe book is absolutely correct on this point. Instead of holding the juice in meat, searing actually drives it out. If you want to retain all the juice possible in a tender roast keep your oven at a moderate, even temperature from start to finish, say about 300 degrees Fahrenheit. And do not overcook the meat. Well done beef is bound to shrink and lose more juice than a roast cooked only to the "rare" stage.

Question: Should you roast a leg of lamb or ribs of beef in a covered or an open pan?

Answer: All tender meats with a good covering of fat are better roasted in an open pan. Strangely enough your tender roast will be more juicy if you keep the oven temperature moderate and follow the excellent motto of "Use no cover, add no water". A cover on the roaster and added water both make steam, and steam draws out the juices. They are lost from the meat, though they may be saved in the gravy.

But if the roast is tough there is a different answer. Steam is necessary to help soften the tough tissues. But don't steam-jacket a tender roast unless you want to make a pot roast of it.

Question: Why does the meringue on my lemon pie shrink and get watery when I take it out of the oven? It is always so high and so nice and brown when I first take it out.

Answer: Probably you bake your meringue in too hot an oven, so that it browns over the top before the egg foam has cooked through. Meringues will usually be cooked enough to hold their shape if you bake them in a very moderate oven (325 degrees Fahrenheit) for 20 minutes. But if your meringue is piled high on the pie you will be wise to bake it more slowly and for a longer time.

Add a few grains of salt to the egg white when you start beating. The salt will help make the foam stand up better. And be sure to use the correct amount of sugar. About two tablespoons for each egg white usually works best.

If you beat the egg whites by hand--the usual custom--add the sugar when the foam is stiff enough to stand in peaks. A wire whisk makes for more fluffiness than a dover beater. But if you use a power beater, add the sugar before beating the egg white, then your foam will be sure to stand up.

Another help in getting a foam that stays high and fluffy is borrowed from angel food recipes. That is the use of cream of tartar or lemon juice. The addition of a small amount of acid in this way makes more foam, and a foam that will both stand up better and be more tender than it would without the added acid. Good proportions are 1 teaspoon of lemon juice or $\frac{1}{4}$ teaspoon of cream of tartar to three egg whites.

Question: Can you please tell me what caused the chocolate on the mint candies I dipped to have light and dark streaks? It was also much too thin on the candies.

Answer: Probably you melted the chocolate at too high a temperature, and dipped the mints while the chocolate was still quite warm. For the best dipped chocolates you should buy the kind of chocolate especially designed for this purpose. It should be melted over lukewarm water (130 degrees Fahrenheit), not

over hot water; so that the chocolate will never really warm to the touch. This low melting temperature is necessary for two reasons. It prevents the starch from thickening and causing the objectionable streaks. Also dipping-chocolate contains a very large percentage of cocca butter that melts at a low temperature, and scorches easily.

Before dipping mints, or any kind of candies, the chocolate should be cooled still further (to 85 or 80 degrees), or until it is just as cool as you can get it without it becoming solid. Then it will leave a rich, heavy coat on the candies. But if the chocolate is warm--and thin-- it will "slide" right off.

Question: Does the color of the shell of an egg make any difference in its food value?

Answer: No, the color of the shell of an egg is determined by the breed of the hen, and as far as can be learned has no influence on the flavor or food value of the egg. Even the color of the yolk is not a reliable indication of its food value, as either pale or deeper colored yolks may be rich in important vitamins and minerals.

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THE MARKET BASKET
by
Bureau of Home Economics, U. S. Department of Agriculture

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CORN, AMERICA'S OWN CEREAL

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An old adage that "romance comes wrapped on commonplace packages," seems made for America's own cereal -- common field corn.

Romance touches on the tradition of the planting of the first maize by forerunners of the Aztecs; it figures prominently in the story of the saving of our colonial ancestors from starvation. And in modern times the "romance of industry" offers such commonplace wonders as the transformation of white cornstarch into crystal clear sirup.

Even the most everyday foods acquire a sentimental interest as they grow up with a people through primitive or pioneer times. So it has been with dishes made of corn meal, grits, or hominy in America, from the tortillas of Mexico to the "stamp and go" corn-fish cakes of Jamaica; and from the simple "hasty pudding" of the New England states to the spoon bread of the South.

"Corn meal" itself is a term of many meanings, for there are corn meals and corn meals. So, to become an artist in her specialty, a homemaker must know her milled cereals, for corn meals differ greatly in appearance, in flavor, keeping quality, and in food value.

Most obvious is the difference in color. To some, only a rich golden yellow gives a full sense of satisfaction, while others show a decided preference

for a white color in corn meals. In food value, yellow meal is a very good source of vitamin A, frequently associated with the yellow color in foods. The white meal is lacking in this vitamin.

Of greater significance are the differences due to the method of grinding. For the milling process determines whether most of the original food value of the corn will remain in the meal, or whether certain choice bits of the kernel, specifically most of the germ and the outer coat, will be largely sifted out -- to be used in other products.

On the one hand, is the entire-grain corn meal, called "old-process", "water ground", or "stone ground", which retains nearly all the food value of the original kernel. The richer flavor of this meal is due to the oil of the germ; its superior food value, to the vitamins and minerals, especially the vitamin B and iron, concentrated in the germ portion and the outer layers of the kernel. Some "water ground" meals are now bolted and more of the sperm and bran are lost. Entire-grain meal spoils quickly, for the oil of the germ becomes rancid in a short time if left open in a warm place. For best results, store tightly covered in a cool place, and use within a month or six weeks.

On the other hand, "new process" or refined corn meal, with most of the precious yet trouble-making germ sifted out, loses some of its vitamins and most of its minerals, though it retains the high energy value of the original kernel. Corn meal of this type keeps indefinitely.

Cooks, and compilers of cookbooks, rather than the dietitians, are concerned with the third major difference in corn meals, the difference in fineness or coarseness of grinding. Meals with coarse particles sometimes weigh a good third more than those finely ground. So, consider both the grind of your meal and the intention of your recipe when making corn bread, muffins, or any other "light" preparation. If you have reason to believe your recipe is written for

fine corn meal, and the kind you have on hand is coarsely ground, use scanty measurements, say 3/4 cup of coarse meal for every cupful called for in the recipe. Or weigh, rather than measure your corn meal.

Aside from reasons of weight, finely ground meals are preferred for some corn meal dishes; coarsely ground meals, for others. Fine meals are the best choice for preparations to be shaped or molded with the hands, as corn pones or chicken tamales, for coarse meals have an annoying way of crumbling. Only finely ground meal is suitable for "custard corn bread". But coarsely ground meal gives a better consistency for the old favorite Indian pudding.

"To scald, or not to scald" is another question to be settled by cook and cookbook. Bureau of Home Economics specialists say, scald if you want the "binding" properties and consistency necessary for molding or shaping into cakes. Scald, also, if you are using coarse meal for quickly cooked batters as griddle cakes and waffles.

And when it comes to corn bread, the motto "all things to all men" seems applicable. Traditionally the southern corn "pone" is the simplest of all corn breads, and "Johnny cake" is its northern cousin. In practice, the name is proof of nothing, and many of the ingredients of corn bread -- aside from corn meal, of course -- can hardly be foretold. Fancy also dictates the cooking method, and some corn breads are even baked on top of the stove in griddle cake fashion.

Corn bread may or may not include wheat flour, eggs, leavening agent, sugar and shortening. It may be softened with mashed sweet potato or sieved pumpkin; enriched with cracklings (crisp bits left after rendering lard), or with diced, fried bacon; sweetened with white or brown sugar, or molasses; pepped up with spices, or perhaps chopped raw apple, grated pineapple or some other fruit may be used to add new interest.

But to the real lover of corn bread, the plainer, the better. It is made very simply from corn meal, liquid, salt, fat, and some leavening agent. Proportions are not rigid, and many families have their own favorite recipes. But if the recipe is from the old South, it has no sugar nor molasses.

If sour milk is used, the leavening agent is soda, a scant 1/2 level teaspoonful for each cup of sour milk or buttermilk. If sweet milk is the liquid, or dried milk and water are substituted, add a level teaspoonful of baking powder for each cup of meal, and 1/2 teaspoon of salt and one tablespoon of fat will be about right.

The amount of liquid depends partly on the meal, and partly on the way the batter is to be cooked -- whether it will be molded into pones or cakes, baked in a pan in the oven, or poured onto the griddle iron. For griddle cakes, or baking in a pan, equal quantities of meal and milk usually work best. For baking in the oven, spread out thin, so there will be plenty of that delightful, crunchy crust -- some with every bite. And for pones, about 1/3 of a cup of liquid for each cup of meal will be required to give them consistency for molding unless the liquid is added hot. Make allowance for the grinding, as well as for the dryness of the meal, in determining the amount of liquid and whether or not to precook.

"Ready to serve" hominy acquires a new popularity if you give it an extra hour of cooking in a double boiler. Add a little salt, and enrich by allowing the cereal to absorb half its quantity of milk. Better still, double the milk solids by using dry skim milk. Use 1/2 cup of powdered milk to each cup of water. Corn meal mush, as other dry cereals, will offer more food value if enriched in a similar manner by adding milk powder to the dry cereal before cooking. Good proportions are half as much -- or equal quantities -- of dry skim milk and cereal.

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by
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VITAMINS UP-TO-DATE

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Today, man is beginning to be on speaking terms with the vitamins. He calls many of them by name. Vitamins are no longer clouded in mystery; they are known to be "distinct chemical substances, each having its own special function to perform in the body."

A large part of the intricate task of clearing away the mystery -- finding out what vitamins are, as well as what they DO for the human body -- has at last been accomplished. The study of nearly every one of the vitamins brought surprises.

The original vitamin B, for instance, turned out to be not one vitamin -- not one substance -- but several. And these substances not only differ from each other, but at least three of them fill different needs in the body. These three are now called by their own names, for nutrition workers know exactly what they are: thiamin, for years called vitamin B_1, or the anti-beriberi vitamin; riboflavin, also known as vitamin G or B_2: and nicotinic acid, until recently called the "pellagra-preventing factor".

But new findings are by no means limited to identification of the vitamins. For one thing, nutrition workers are more convinced than ever that many people do not get enough vitamins. Even deficiency diseases are far too common. Pellagra

still claims many victims in America every year. And too many babies suffer from rickets and scurvy.

Nutrition workers are especially concerned, these days, about the thousands of what are called "borderline" cases, that is people who suffer bad effects because they do not have enough of certain vitamins, although they do not show actual symptoms of any deficiency disease. And tens of thousands of other Americans, including many with flourishing bank accounts, do not get as many vitamins as their bodies could use to advantage -- not enough to speed them on the road to abounding good health.

A good supply of vitamins is particularly necessary during periods of "growth and development", therefore the diet of children and young folks, and nursing and expectant mothers, should be watched with special care.

"Highlight" summaries of the vitamins up-to-date follow.

Thiamin (Vitamin B_1)

An adequate supply of this vitamin is necessary to keep the muscles in good "trim" and the digestive tract and the appetite in good order. Thiamin is especially important for the expectant or nursing mother.

Thiamin is one of the three vitamins (thiamin, riboflavin, ascorbic acid - B_1, G, C) that soak out into the cooking water. This vitamin is easily destroyed by heat, especially when soda is used in cooking.

The richest sources of thiamin are whole seeds and legumes, including peanuts and soybeans. Among animal foods, pork, chicken, kidney, and liver supply the largest quantities of this vitamin.

Riboflavin (Vitamin G or B_2)

Riboflavin is the new name for what has been called vitamin G and also B_2. It is necessary to the good health of all the living cells of the body. Like thiamin, riboflavin soaks out into the cooking water, but is not as easily

destroyed by heat. The richest sources of this vitamin are the lean meats and animal organs, eggs, and cheese and milk. All forms of milk are rich in riboflavin, whether skimmed or whole. Because of their greater concentration, dried, condensed, and evaporated milks are especially good sources. The best vegetable sources are leafy vegetables and the cabbage family, the polishings of rice, the red skins of peanuts, and the germ portions of wheat and soybeans.

Nicotinic acid (Pellagra-Preventing Factor)

Nicotinic acid, one of the newer discoveries in vitamins, blossomed out with a name, without going through the letter stage first. Nicotinic acid is being successfully used by doctors in the treatment of pellagra. Although the names sound much alike, this vitamin is not to be confused with the nicotine of smoking tobacco.

The person who gets too little nicotinic acid in the diet, loses his appetite, falls off in weight, and becomes weak and listless.

The best sources of the pellagra-preventing factor are lean meat, chicken, liver, buttermilk, leafy-green vegetables, and green or dried peas and beans.

Ascorbic acid (Vitamin C)

The very name of this vitamin suggests its function in the body, the prevention of scurvy. Because ascorbic acid cannot be stored in the body, a daily supply is necessary for everyone -- necessary for good health and good "tooth nutrition".

Ascorbic acid is the most readily destroyed of all the vitamins. Much of it is destroyed by heat and air in cooking, and some of this vitamin is even lost from foods if they are stored for a long time.

Citrus fruits, the richest natural sources of ascorbic acid, tomatoes, and some other fruits besides the citrus family, contain acid which protects the vitamin C in these foods, whether they are stored, cooked, or canned.

Most fresh fruits and vegetables are good sources of ascorbic acid, especially when eaten raw. Liver and brain are excellent animal sources.

Vitamin A

For convenience vitamin A and vitamin D are still called by letters rather than by names, as several different substances can take care of the body's need for vitamin A; and several other different substances will cure or prevent rickets.

Persons who do not receive enough vitamin A, soon begin to lose their ability to see well in dim light, and scientists have now developed a way of telling just how much vitamin A is needed to make the eye respond normally in a faint light. Through this method, nutrition workers can conduct diet experiments on human beings to learn much more about man's needs for vitamin A than was possible with tests on rats.

Besides having this nutritional eye weakness, a child that does not get enough vitamin A, may not reach his full growth, and he may also have defective bones and teeth.

Man gets his vitamin A in two ways. His food either contains vitamin A, or contains substances known as provitamin A, that are changed to vitamin A in the body -- and this changing process is sometimes wasteful. Vitamin A comes from animal foods as fish-liver oils, egg yolk, butter, cheese, whole milk, and cream. Provitamin A comes largely from the leafy-green, and green and yellow vegetables and from yellow fruits -- the deeper the color, the more provitamin they are likely to contain.

Vitamin D

Vitamin D, and the mineral "building stones" calcium and phosphorus, are the three principal substances necessary for the development of normal bones and teeth.

Nutrition specialists recommend that "every child at least until he is 2 years of age -- better perhaps until he is 6 years old -- receive 2 teaspoons of cod-liver oil -- or its equivalent in vitamin D from some source daily, except when exposed to the direct rays of the summer sun." Expectant and nursing mothers also need an extra supply of vitamin D, for their own protection as well as for the good of the infant's bones and teeth.